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McCRILLIS, H. O.

The conquest of pain. Boston, 1908.

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William Thomas Green Morton, from the painting by W. Hudson, Jr., 1845

and mine props, can be doubled and often trebled by inexpensive preservative treatment. To-day, when the cost of wood is a big item to every farmer, every stockman, every railroad manager — to every one, in fact, who must use timber where it is likely to decay — this is a fact which should be carefully considered.

It is easy to see that if the length of time timbers can be used is doubled, only half as much timber will be required as before and only one-half as much money will need to be spent in the purchase of timber. Moreover, many woods which were for a long time considered almost worthless can be treated and made to last as long as the scarcer and more expensive kinds.

Of the actual saving in dollars and cents through preservative treatment, a fence-post such as was mentioned at the beginning might serve as one example. The post is of loblolly pine, and costs, untreated, about eight cents, or, including the cost of setting, fourteen cents. It lasts about two years. Compounding interest at five per cent, the annual charge of such a post is 7.53 cents; that is, it costs 7.53 cents a year to keep the post in service. Preservative treatment costing ten cents will increase its length of life to about eighteen years. In this case the total cost of the post, set, is twenty-four cents, which, compounded at five per cent, gives an annual charge of 2.04 cents. Thus the saving due to treatment is 5.49 cents a year. Assuming that there are two hundred posts per mile, there is a saving each year for every mile of fence of a sum equivalent to the interest on \$219.60.

In the South the cheap and abundant loblolly pine, one of the easiest of all woods to treat, can by proper preparation be made to take the place of the high-grade longleaf pine for many purposes. Black and tupelo gums and other little-used woods have a new and increasing importance because of the possibility of preserving them from decay at small cost. In the Northeast are tamarack, hemlock, beech, birch, and maple, and the red and black oaks, all of which by proper treatment may help to replace the fast-diminishing white oak and cedar.

To be sure, the preservation of wood will not of itself prevent the dearth of lumber which threatens to come within a few years. But it will help. And in the meantime it

has the not objectionable possibility of dollars for all who read and see and act.

Inexpensive Summer Homes

VIEWED superficially, our plan to publish matter pertaining to outdoor play between the same covers with matter for serious indoor consideration might seem a trifle inharmonious. Upon second thought it will appear no more discordant than that Oliver Wendell Holmes should have been a crack oarsman. It all depends on the point of view.

A magazine of baseball may well restrict its contents to the things and people of baseball. A magazine of pure literature will do well to keep within that realm. We prefer not to view this magazine from any one specialized department of thought or activity, but from the broad consideration of man — the New Englander. Our space and your time forbid publishing *all* the things of the New Englander, but we shall aim to choose from the inexhaustible supply of material such things as will appeal to the diverse moods of the average New Englander.

Now a subject of pretty general appeal is the problem of a summer home. Every man, woman, and child is better in health and energy for an annual change of air and scene. For families of means the problem is easier of solution. But how to have a comfortable summer place with the limitations of low cost and probably nearness to some city is not so easily answered.

In our May issue we purpose publishing an article on summer camps costing from \$500 to \$1,500 which will satisfy all the practical requirements and yet be cozy if not artistic. Of course one can always live in a tent through the summer, by tolerating a thousand privations. But to have a permanent cottage at a low price is so desirable that we feel justified in spending considerable pains to gather plans, photos, and details of some very successful places already built. As some of the most capable architects have devoted much thought to the solution of this problem, the examples which we shall show embody skill in arrangement as well as economy of space and cost.



THE CONQUEST OF PAIN

By HERBERT O. McCRILLIS

182. Mag. Apr. 1908

WE give great and just praise to the men who have annihilated space and time and made possible the communication of ideas in an instant over continents and oceans; to the men who have harnessed electricity and made it a servant of wonderful power and usefulness; to the man who found the giant Steam and set him to work in the steam-engine, in whose train have followed a multitude of discoveries and inventions.

A host of claimants for honor rise up all about us as we summon those who have benefited society by their patient searching for the hidden laws and forces of nature.

It is a brilliant and notable company, and our own land can claim many of them as her own. These may be styled conquerors; for all have overcome, in some degree, difficulties which barred the way of progress.

Among them should be reckoned the one who showed us that even pain, that great enemy of man, classed so often with death itself, might be driven away and held in abeyance at the will of man; for, after all, is there any discovery in the wonderful list that can outrank that of practical anæsthesia? Yet, how many can speak the name

of the man who revealed the possibility of lying down in sweet forgetfulness while the surgeon performs his necessary task — to save the life and health endangered by accident, war, or disease?

Who was he? We shall see.

We of the present generation can only imagine, happily not realize, what old-time surgery was. A few veterans of medicine and surgery remain to tell us. Then, they say, strong men had to hold the shrieking, suffering patient to the torture of the operation, as bad as that of the ancient Spanish

— Inquisition. Imagine delicate women undergoing treatment under such a trying ordeal.

Evidently it would be impossible for language to express the suffering of those pre-anæsthetic days. And such was surgery until 1846. Is it any wonder that all shrank from it and preferred anything to its horrors?

Will there ever be a time when surgery will not be necessary? We ask ourselves this in the line of many men's thinking of to-day, and say, Would that surgery might be unnecessary! But so long as people are mangled by accidents, so long as war and disease endure, so long will the surgeon be undoubtedly needed. While possibly un-



Monument to Dr. Morton in Mt. Auburn Cemetery, erected by citizens of Boston

necessary surgical operations are performed, it is undeniable that very many lives are prolonged by skilful surgery; and nearly all of this would be impossible without anæsthesia.

Many and varied had been the means tried before the day of practical anæsthesia for causing insensibility to pain during surgical operations. In a very few cases, scattered over a great lapse of time, these had been successful. Various drugs were used; carbonic-acid gas was inhaled; the juice of mandragora, poppy, Indian hemp, and other substances were also found to deaden pain or divert the mind from it by stupefaction or exhilaration.

We have all read in the sacred record of the "wine mingled with myrrh" given to our Lord on the cross, as was the custom, with the intent, undoubtedly, to lessen the suffering.

The Chinese are reported in an ancient medical work of theirs, translated two centuries ago into French, to have used a preparation of hemp called ma-yo to produce insensibility, during which operations otherwise painful could be performed without the slightest pain.

This preparation of hemp seems to have been used by Orientals quite generally to produce exhilaration or intoxication. But the use of it was very dangerous and uncertain, producing generally injury, and often being fatal.

Writers of four hundred years ago speak of decoctions of drugs being given to condemned criminals and persons about to undergo torture, which enabled them to bear pain better through stupefaction.

The world searched for hundreds of years for something *sure* and *safe* to dominate pain, and did not find it. Records exist, it is true, of wonderful things being done here and there in the prevention of pain by the use of remedies known to only a few. During later years extreme cold, alcoholic intoxication, compression, mesmerism, and even inhalation of carbonic-acid gas were all used in the desperate attempt at painless surgery. Opium seems to have been the favorite means, however, up to the time of the great change.

What was the result of all this searching, and what was the general attitude toward the subject just before the day when it was proved that the quest of centuries had been ended?

The result of all the experimenting from the earliest days to 1846 was fruitless as far as producing any means *sure* and *safe* by which insensibility to pain during surgery was possible. In spite of statements made to the contrary, the world was still waiting.

The sentiment of this darkness just before the dawn of discovery seems to have been fitly expressed by the celebrated French surgeon Velpeau in 1839, when he wrote: "To escape pain in surgical operations is a chimera which we are not permitted to look for in our day." And yet, the man who was to draw aside the veil of mystery and reveal the method of painless surgery to an anxious world had, even as these words were written, reached man's estate, and commenced the search which was to end in the application of ether, the wonderful thing which was to bless every race of men.

William Thomas Green Morton, the revealer of painless surgery, was born Aug. 19, 1819, among the hills of the south-central part of Massachusetts, in the country town of Charlton, small in population, but beautiful for situation; nurtured in an old-fashioned, square, big-chimneyed house, which was shaded by great trees and vine-laden.

Here, with the best of environment, as a country boy and amid scenes common to New England lads of that time, he lived, until,—with the exception of academy days at Oxford, Northfield, and Leicester, covering four years,—at the age of seventeen, he left his home for Boston, to become a bookseller.

From very early years young Morton had said he would be a physician. Apparently, his hope was never to be realized, for his father was not able, through business reverses, to give him the means for a medical education. About the time of the commencement of his career in Boston, however, dentistry was becoming a profession by itself. Being denied the pursuit of the study for which he longed, Morton's attention was attracted to this as allied to the study of medicine, and possible of attainment by him. In Baltimore, in 1840, the American Society of Dental Surgeons had been organized. So, becoming acquainted with men prominent in this new movement, he commenced his studies there, and in 1842 was ready to establish himself in busi-



Dr. John C. Warren, who performed the first operation under ether

ness. This he did in Boston, with Horace Wells, afterward a contestant for the honor of discovering anæsthesia, as partner. But their business venture proved unprofitable, and they separated.

Later, Morton, by perseverance, study, and skill, built up a very profitable business, and established also a successful manufactory of artificial teeth. He was considered, so good authority states, superior in his profession.

In 1844 he married Miss Elizabeth Whitman, of Connecticut. In the same year he enrolled his name as a medical student, determined, as it seems, to realize his old cherished hope, and obtain the knowledge needed now in the investigations which he had begun. His wife reported also another reason for this study, which was the aver-

sion of her mother to Morton's business of dentistry, which was, strange as it seems to us now, looked down upon by very many.

Later on, when he had made the great discovery, some enemies of his sought to detract from his abilities, and argue that he could not have done this because he was only a dentist. The fact is that he had nearly completed his second year at the Harvard Medical School. The duties which then came to him in connection with the discovery prevented his continuance, but he was no doubt as well fitted for the title of M.D. as many who received it after completing the four years' course. Indeed, another university conferred on him this honorary title.

These investigations just spoken of were the germ of the wonderful discovery, inno-

vation, or presentation he was soon to make, and commenced in the following way. He had found an improved method for adjusting artificial teeth in the mouth, which he hoped would prove profitable. This, however, required the extraction of all roots remaining in the gums. At once it was found that the great pain of doing this would keep nearly every one from having the new mounting. The need of something to prevent this pain thus came to him as a business problem, and led him to commence the search for it.

To accomplish his object he commenced to experiment with various substances, and seek information upon any method that seemed promising. One of the things he used was common ether.

The fact that the inhaling of ether was a relief in bronchial troubles was applied in medical practice. And it had also been known for a great many years that it would produce stupefaction, exhilaration, or intoxication. This knowledge of it was only experimental and often made use of in medical lectures. The benumbing effect of ether locally applied was known also, and this fact was used by Morton. He rubbed the ether on the exceedingly sensitive gums of a patient he was treating and found that she felt less pain when he was working on her teeth.

This observation and his study gave rise to the theory that the whole body, if brought under this influence, at once would be similarly affected. To test this the experiments took the form of administering ether to small animals, as birds, fishes, and large insects.

Morton naturally found difficulties at first, and failures. He confided to some of his friends his hopes of finding a way to extract teeth without pain.

His first experiments were in the main unsuccessful; but he persevered, believing in his theory, using as a subject for his experiments this time a large spaniel owned by him. Many times he sent the dog into complete insensibility, from which no injury appeared on returning consciousness. He thus demonstrated that ether could be repeatedly inhaled to insensibility by an animal with safety.

Mrs. Morton, in relating in *McClure's Magazine* of September, 1896, the story of her husband's life, says that on one occa-

sion he came along after one of these administrations leading the dog, which walked rather unsteadily, and said, "Poor Nig! I've had him asleep a long time. I was afraid I had killed him."

Morton was confident that he had found something of great value. He was so sure of it that he turned over his dental practice to a friend, and determined to devote his whole time to experiments. He had reached the stage of experimenting in which inhalation of the ether by some person or persons was needed to test it still further. Every one was afraid of it. He found it impossible to induce any one outside of his office to submit to the test, though he offered a reward of money.

In all previous experiments with ether, nitrous oxide, and other benumbing influences the patient had not been allowed to go into complete unconsciousness, and the general impression was that such a state, if allowed, might, probably would, result fatally.

At length his assistants consented to let him try its effects on them. Though no bad result came from these experiments, the effect produced was one of more incredulity on the part of those taking the ether, for they were only imperfectly placed under its influence, making them intoxicated, and causing much trouble, as force was required to restrain them. Morton found out that this was due to impure ether. It contained a large proportion of adulterating matter. Ridicule for him and his pretended useful preparation was the only outcome of this.

Finally, desperate in his desire for proof, and believing in the safety of his discovery, he resolved to administer the ether to himself, having obtained some that was pure.

Through the help of Mr. Joseph M. Wightman, a maker of scientific instruments, he had obtained an apparatus for administering the ether, which was a glass globe, having two openings, or necks, in which was placed a sponge saturated with ether. Many other more elaborate forms for the purpose were afterward made, but, in principle, the one now used after more than sixty years is almost the same.

Morton afterward used these words for describing the experiment upon himself, in his Memoir addressed to the French Academy of Arts and Sciences at Paris. He said:

Washington Dec 20. 1845
 Dear Sir,
 In reply to your letter of the 17th inst. I would say that having been called on, on a previous occasion to examine the question of the discovery of the application of ether in surgical operations I then formed the opinion, which I have since seen no reason to change, that the merit of that great discovery belonged to you, and I had supposed that the reports of the Senate of the Hospital, and of the Committee of the House of Representatives of the U.S. were conclusive on this point.
 The gentlemen connected with the Hospital, as well known to me, as of the highest character, and they possessed of the basis of the investigation, very readily, for ascertaining all the facts

in the case,
 The Committee of the House now, I believe, unanimously are awaiting to you the result of your made the first practical application of ether, and a majority by their report awarded to you the entire credit of the discovery.
 Very respectfully,
 Your old Serv.
 David Webster

Letter from Daniel Webster to Dr. Morton, acknowledging him (on behalf of the Committee of the House) as the discoverer of ether as applied to surgery

"Taking the tube and flask, I shut myself up in my room, seated myself in the operating-chair, and commenced inhaling. I found the ether so strong that it partially suffocated me, but produced no decided effect. I then saturated my handkerchief and inhaled it from that. I looked at my watch and soon lost consciousness. As I recovered I felt a numbness in my limbs, with a sensation like nightmare, and would have given the world for some one to come and arouse me. I thought for a moment I should die in that state, and the world would only pity or ridicule my folly. At length I felt a slight tingling of the blood in the end of my third finger, and made an effort to touch it with my thumb, but without success. At a second effort, I touched it, but there seemed to be no sensation. I gradually raised my arm and pinched my thigh, but I could see that sensation was imperfect. I attempted to rise from my chair, but fell back. Gradually I regained power over my limbs, and full consciousness. I immediately looked at my watch, and found that I had been insensible between seven and eight minutes."

Morton was criticized for the daring spirit he showed in his experiments, and in

the first public application of ether, and called reckless. Terrible things were prophesied as resulting from this spirit, particularly by Jackson, his greatest opponent, until after the danger was all over. Would less daring have brought to the world the priceless gift of painless surgery? Was n't it necessary for some one to dare? Did not Morton, from experiments he had already dared to perform, have a logical reason for the final and crucial tests?

Having thus demonstrated to himself the safety of inhaling ether to unconsciousness, and that it prevented pain, his joy was great. His wife mentions his excitement that night, and his intense desire for an opportunity to administer the ether to some person about to endure a painful operation. Strangely enough, the opportunity came that very evening after his experiment on himself.

Sometime after the usual office hours a man came to the office with his face bandaged and told Dr. Morton that he must have a tooth drawn, though, from prolonged inflammation and pain, it was so very sensitive that he dreaded to let the doctor touch it. Morton recognized the opportunity hoped for. The man (he was



House where Dr. Morton was born

Mr. Eben H. Frost, a musician, living at 42 Prince Street in Boston) said, "Can't you mesmerize me, Doctor? It is so sensitive!"

Dr. Morton assured him that he had something better than mesmerism, and, seating Mr. Frost in the operating-chair, he wet his handkerchief in ether and applied it to the patient's nose. He immediately became unconscious, and Dr. Morton extracted the tooth, which was a hard one to pull. Not a sign indicated that there was the least pain. When Mr. Frost recovered consciousness he was so surprised and delighted that the dreaded ordeal was all over, and so easily, that he shouted, "Glory! Hallelujah!"

This was on Sept. 30, 1846, at the office of Dr. Morton, 19 Tremont Row, and Mr. Frost gave Dr. Morton a certificate stating his experience, and that no unpleasant effects followed his inhalation of the ether. This was also signed as witnessed by two who assisted Morton at the time.

Following this, the ether was used in many other cases by Morton in the practice of dentistry, and with equal success. However, no one but him knew what was used to put the patient to sleep; and only comparatively few knew of it at all. A new era was dawning, but the great truth was still

clouded. Although it is reported to have been well known among many of the dentists that Morton had something that would deaden pain, and even reported that the preparation, as it was then called, was used in surgery, it is also very certain that the physicians and surgeons were as a class entirely ignorant of its existence or sceptical of the effects claimed for it. With Dr. Morton remained the secret of its composition and use. No one else had made any successful pretensions to anything of the kind, and no one at that time was, so far as known, trying any experiments along that line.

At this stage of the experimentation it was proved that not only could this preparation be inhaled safely to insensibility, but that, while under its influence, persons did not feel the extraction of teeth or other operations said to have been performed.

In dentistry it was no doubt valuable. Would it render surgery painless? To answer this in the affirmative was the goal toward which the young discoverer now pressed. Yet, how was he, a common dentist, working at a business scarcely yet called a profession, to convince all the learned surgeons, who were, almost to a man, sceptical of the possibility of what he knew to be a fact? They had seen things tried before for which equally great results

had been confidently predicted, but all had ended in ignominious failure. Surely a crucial and public test of Morton's discovery must be made. And how?

Here, again, Morton's faith in his idea, his earnestness and courage, did not fail him. He sought an interview with Dr. J. C. Warren, then the senior surgeon at the Massachusetts General Hospital in Boston, and asked that an opportunity might be given him to try the new substance in a case of capital surgery at the hospital. To his honor let it be said, Dr. Warren listened attentively, kindly saying, at the close of Morton's statements and request, that he had long wished for something of the kind Dr. Morton had described, but never found it, and should do all he could to further his wishes.

Shortly after this interview Morton received this note:

"*Dear Sir*, I write at the request of Dr. J. C. Warren, to invite you to be present on Friday morning, at 10 o'clock, at the hospital, to administer to a patient who is then to be operated upon the preparation which you have invented to diminish the sensibility to pain.

Yours respectfully,

C. F. HEYWOOD,

House Surgeon to the General Hospital.

Oct. 14, 1846.

Dr. Morton, Tremont Row."

Dr. Morton realized that the momentous time had arrived, and worked steadily during the next two days to get ready for the experiment, the exceeding importance of which to the world even he himself could not then have estimated.

The place in which this demonstration, destined to confer such a blessing on mankind, was to occur was the circular operating-room at the Massachusetts General Hospital in Boston. Situated in the dome of the hospital, far from the wards, so that, it was said, the screams of the poor, tortured patients of ante-anæsthetic days might not be heard by the other patients. How soon was all this unnerving agony to be replaced by peaceful slumber, giving the surgeon liberty to use his utmost skill undisturbed! The room has been materially unchanged since that eventful day. The furniture, cases of instruments, seats, statue, mum-

my-case, have remained. Clinics are now held in the place.

Grouped on the terraced seats of this amphitheatre of pain were, this morning in October, 1846, an unusual number of medical men and students, attracted by the word which had gone around that Morton the dentist would administer to the patient of that morning his preparation for making painless the impending operation. The patient came in: a young man, Gilbert Abbott by name. From his neck was to be removed a tumor. Around him, as he took his place in the operating-chair, gathered the surgeons, the most skilful in New England.

Dr. J. C. Warren, the senior surgeon of the hospital, who was to perform the operation was the grandfather of Dr. J. Collins Warren, prominent as a Boston physician to-day; his grandfather was Dr. Joseph Warren, the patriot general killed at Bunker Hill. Dr. Isaac F. Galloupe, of Lynn, Mass., who is the only living witness of this scene, says that Dr. Warren waited a half-hour for Morton. There were many sneering remarks and looks during this time, and the students anticipated the fun of Morton's failure. Finally, looking around on the assembled company, Dr. Warren said, "Dr. Morton has not come; perhaps he has another engagement. We will proceed with the operation." At this very moment Morton entered, breathless, and red in the face from his great hurry.

The cause of his tardiness was his delay in preparing the inhaler, which may now be seen in the old operating-room at the hospital. On the previous day, October 15, Dr. Gould, a friend of Morton's, had suggested, says Dr. Galloupe, that valves be put into the inhaler to aid the elimination of expired air. At midnight, Morton had thought out the way of doing it; he then went to the house of Mr. Drake, a philosophical instrument-maker, rang him out of bed, hurried him to his shop, and induced him to make the required alterations, which took well into the next forenoon.

As Morton appeared with this glass instrument in his hand filled with the mysterious preparation, Dr. Warren said, "Your patient is ready." Without delay, and with no words, except a few of encouragement to Abbott, Morton proceeded to the in-

halation. The contents of the inhaler appeared bright red, he having used coloring-matter at first in his preparation.

It is probable that few present believed in the complete success of what he saw Morton use. Very soon, however, the young dentist had the great satisfaction of seeing the man pass into complete insensibility. Then he turned to Dr. Warren in his laconic way and said, simply, "*Your patient is ready, sir.*"

Incredulity in the faces of the beholders had given place now to expressions of interest, which were intensified as Dr. Warren proceeded with the operation. The students and doctors were thunderstruck at what they saw. The silence was perfect. They got up on the backs of the seats, and those nearest were on their knees leaning over the rail in front. When he had finished the operation Dr. Warren turned to the company and said, impressively, his words intensified by the perfect stillness of the room, "Gentlemen, this is no humbug!"

Abbott declared, on fully recovering consciousness, that he had felt no pain whatever, and but little sensation toward the last of the operation, caused probably by the removal of the tube from his mouth. Congratulations for Morton followed, and it must have been a happy moment for the young dentist. He was only twenty-seven years old at this time. Dr. Galloupe describes Morton as tall, straight, dignified, and rather solemn in manner, with supreme self-control, laconic in speech, using fewest words possible.

Over the platform in John Ware Hall, in the Medical Library Building on the Fenway in Boston, hangs a large painting of this remarkable scene. It was executed by Mr. Robert Hinckley, the well-known artist of Washington, D. C. By him it was presented to the Medical Library. This was painted after the most careful study by Mr. Hinckley, many interviews with living witnesses, correspondence, and inspection of the place. Of course, the operation was before the days of photography, and only daguerreotypes were known then. A daguerreotype made later, with those participating in it as subjects and in about the same positions, has been many times reproduced. It has the merit of being made very soon after the operation, and the faces are actual portraits. Naturally, the element of

surprise and intense interest belonging to the actual scene could not be reproduced. Mr. Hinckley has endeavored to bring this out in his picture, as well as to make the portraits lifelike. They have been pronounced good by some of those who knew the men concerned. In this painting are also to be seen the terraced seats, just as they remain to-day, filled with the eager witnesses.

The news of the discovery of a way to render surgery painless spread quickly. Two of the papers of Boston, the *Post* and *Journal*, noted it.

[From *Boston Daily Journal*, Oct. 17, 1846.]

SUCCESSFUL OPERATION. Yesterday morning Dr. Morton, Dentist, No. 19 Tremont Row, at the invitation of Dr. Haywood, visited the McLean Hospital and administered his preparation to produce sleep to a person about to undergo the operation of the extraction of a tumor from the neck. We learn from a gentleman who conversed with one of our oldest and most respected physicians, who witnessed the operation, that the success of Dr. Morton's experiment was complete. The patient, sitting in a chair with everything made ready by Dr. Warren, who extracted the tumor, inhaled the preparation for a very brief space of time when he fell into a quiet slumber, and the surgeon proceeded to extract the tumor. The patient did not manifest the slightest symptoms of suffering, and no muscular action whatever. He appeared to be totally insensible to what was going on till very near the close of the operation, which was quite protracted, when he drew a long sigh. It is quite as much for the interest of the surgeon as for the patient that this preparation should be administered; for while it renders the latter insensible to the pain attending severe surgical operations, it affords the former the means of doing his work freed from all interruptions on the part of the patient, and gives him facilities for performing operations in the most expeditious manner.

After the momentous sixteenth of October, 1846, several other successful operations at the hospital under ether settled more firmly the fact of the discovery. In spite of all this, suddenly, however, the surgeons refused to use it, on the ground that, according to their rules, they could not use any secret remedies. As they did not know the composition of the red liquid used by Morton, and which had the smell of ether, they must decline its use in the hospital.

So, for three weeks, the previous torture method of operation was carried on. Then Morton, having by letter and in person satisfied the rigid professional etiquette by his



Massachusetts General Hospital (1846-47)

explanation that the agent used was simple sulphuric ether, only colored by harmless matter, was allowed to use it in a case of the amputation of a leg of a young woman named Alice Mohan, Nov. 7, 1846. The success of this operation was greater than that of the first in the complete and continued insensibility to all feeling.

Although now publicly demonstrated beyond all possibility of doubting, to those who witnessed the operation, the news that at length painless surgery was at hand was received with incredulity in many quarters. Some of the leading medical papers of the country ridiculed it, and accused the Boston surgeons of being victims of a trick.

A meeting of the dentists of Boston was called, and a committee of seven appointed to take "measures to suppress the growing evil" (?) of painless surgery. Other dentists and physicians made war on this "quackery," as they called it. And these men held high places in their professions, too. Even religious scruples were advanced against it, to the effect that pain should be borne as discipline. But, of course, the great discovery became known more and more, and its use was everywhere successful.

Dr. Galloupe states that soon after October 16 Morton's preparation was used in a case of cautery in which no pain whatever

was felt. Dr. Warren said that this was the severest test possible, and proved the complete success of the fluid as effecting painless surgery. Dr. Cotting, one of those students present at the first operation, relates that, as the young men left the operating-room that morning of Oct. 16, 1846, one of the foremost of them called to him and said, "This is a big *thing*. Whoever gets astride of this horse first may ride around the world! I'm going to try it."

Of course the new method won its way over all opposition. It was n't long in getting over the ocean to Europe.

Such is the story of the discovery, and introduction to the world, of the way to overcome pain. Morton called the fluid he used "Letheon," at first. But Dr. Oliver Wendell Holmes suggested the word "anæsthetic" for the means which produced insensibility, and "anæsthesia" as the name of the state produced — terms now in common use.

Does it not seem that the man who revealed this great truth to the world should be rewarded generously, and his discovery received with gratitude? It would be pleasant to so record it. Such was not the case while he lived.

The wife of Dr. Morton has left her testimony that her husband never lived a happy

life after his discovery was given to the world. He spent the rest of his days in the endeavor to establish his claim to the name, and remuneration from the government, for the knowledge he had made universal. Advised by two of the most prominent lawyers of the day, Cushing and Choate, to patent his discovery, he did so, but not with the idea of withholding such a gift from man, to whom it belonged. His idea was the regulation of it. But in after-years this was misconstrued and used as an instrument against him. It is a fact that even almost at the issuance of the patent ether became general in its use, and the government disregarded its own patent in the use of it in the Mexican War.

It is the purpose of this article to state the practical history of anæsthesia, not to reopen the intensely bitter controversy which involved and ruined Morton. It is only necessary to remember that up to Oct. 16, 1846, the world did not know what Dr. Oliver Wendell Holmes named "anæsthesia." However, very soon after the promulgation of the fact by Morton, Oct. 16, 1846, claimants sprang up and asserted that they knew all about it, and to them belonged the honor of discovery. Chief of these were Dr. Horace Wells, of Hartford, Conn., and Dr. Charles T. Jackson, of Boston—the former, a dentist; the latter, a chemist, physician, and scientist of ability. Both had been associated with Morton for a time.

As a consequence of the specious reasoning advanced by these, the public became confused, and even medical societies, both here and abroad, were divided in their opinions. Entering into the struggle of many years to prove his claim, Morton lost all and became poor.

Although the government of his own country persistently refused him recognition, and remuneration for the patent it had given him, and which had been continually violated by the use of ether in the army and navy, the governments of other countries did confer upon him decorations and medals. From Russia he received the cross of the Order of St. Vladimir; from Norway, and Sweden, the Cross of the Order of Vasa.

The French Academy of Arts and Sciences sent him the Montyon prize, which was a gold medal.

The Massachusetts General Hospital has always acknowledged him as the discoverer of anæsthesia, and its surgeons were foremost in attempts to secure for him proper recognition from the government, and remuneration. From the hospital he received a silver casket containing one thousand dollars. In 1851 a memorial and petition was presented to Congress on Morton's behalf. This memorial was signed by over three hundred of the most eminent physicians of Boston and Massachusetts. Though ineffective, it shows who gave to Morton proper credit for his discovery.

Committee after committee of Congress, six in all, reported in his favor; but each time opposition and other business delayed action before adjournment.

Dr. Morton was stricken with apoplexy and died in New York, July 15, 1868, at the age of forty-eight. His wife tells, in her article, of his suddenly losing consciousness as they rode toward Washington Heights that evening. As soon as possible he was carried to St. Luke's Hospital, where the physicians unsuccessfully used their skill to revive him. The chief surgeon recognized him at once, and, turning to some students who were present, said, "Young gentlemen, you see lying before you a man who has done more for humanity, and for the relief of suffering, than any man who has ever lived."

A suitable monument to this public benefactor stands over his grave in Mt. Auburn Cemetery, Cambridge, Mass. It was erected by citizens of Boston. On it is the following inscription:

WILLIAM T. G. MORTON

Inventor and revealer of anæsthetic
inhalation

Before whom, in all time, surgery was
agonized

By whom pain in surgery was averted
and annulled

Since whom science has control of
pain.

Dr. Morton's name is on the Boylston Street side of the Boston Public Library Memorial Tablets; it is also in the list of the fifty-three most famous citizens of Massachusetts, whose names appear upon the base of the dome of the Representatives' Chamber in the State-house at Boston. These were selected "in such a way that they shall either mark an epoch, or desig-



The first operation with ether, at the Massachusetts General Hospital, Oct. 16, 1846.
Painting by Robert Hinckley

nate a man who has turned the course of events."

On the silver box containing the gift of the Massachusetts General Hospital to him are these words: "He has become poor in a cause which has made the world his debtor." Dr. William James Morton, his son, says: "The discovery of surgical anæsthesia, while a boon to the world, was a tragedy to its author, and to his family."

At the semi-centennial celebration of anæsthesia held at the Massachusetts General Hospital, Oct. 16, 1896, Dr. S. Weir Mitchell read a poem, a stanza of which expresses Morton's reception by the world:

How did we thank him? Ah! no joy-bells rang,
No pæans greeted, and no poet sang,
No cannon thundered from the guarded strand
This mighty victory to a grateful land!
We took the gift, so humbly, simply given,
And, coldly selfish, left our debt to heaven.

How shall we thank him? Hush! a gladder hour
Has struck for him; a wiser, juster Power
Shall know full well how fitly to reward
The generous soul that found the world so hard.

Since this first celebration every returning October 16 has been marked at this hospital by some celebration. And it is the intention to continue this; moreover, the authorities of the Massachusetts General Hospital suggest to and urge upon those in charge of hospitals everywhere, the celebration of October 16 as "Ether Day," the day on which Morton proclaimed freedom from the awful, indescribable horrors of old-time surgery.

To enter into detail here of the bitter controversy which engrossed twenty years of Morton's life, wrecking the happiness, prospects, and fortune of himself and family, would be impossible and unnecessary.

The great fact is that he revealed to all

mankind the truth that ether, when inhaled, safely produces insensibility, during which surgical operations can be performed deliberately and without pain. Now that the battle of the claimants is over and the smoke has cleared away, the world is generally awarding to him the honor which is his due, and pronouncing him "blessed."

In regard to those who disputed Morton's claim, it is true that they were students and investigators, and as such deserve credit. But doubtless others, never heard of, deserve as much. They *claimed* previous knowledge of the effects of ether. But the world did not know it, and it is very certain never would have known it from their efforts.

Burton says: "

To know a thing and not to express it
Is all one as if he knew it not.

Dr. Henry J. Bigelow, of Boston, a very prominent surgeon, who was at the first operation and probably Morton's best friend in his efforts says in his book, "Ether and Chloroform," published in 1848, that "he who *verifies* the suggestion

is the real discoverer. Dr. Morton *did* verify the suggestion, from whatever source it emanated. He assumed the responsibility of danger. He first conclusively demonstrated of ether (1) that it would always

produce insensibility to pain; (2) that it was safe. These two points constitute the discovery. Dr. Morton demonstrated these two points, and *no one else did.*" And Dr. Bigelow goes on to say that this knowledge, thus demonstrated, had not been preëstablished.

The monument in the Boston Public Gardens bears no name except that of the donor of it. But it does commemorate Dr. Morton's deed, if not his name, in the inscription: "First

proved to the world at the Massachusetts General Hospital in Boston, October, 1846." Let us hope that public opinion will some day force the placing of Morton's name, as well as the record of his deed, here.

The monument also bears this inscription and scriptural prophecy: "Neither shall there be any more pain."

To the fulfilment of this on earth, William Thomas Green Morton gave his life.



Ether Monument, Public Gardens, Boston



Accession no.

HC

Author

McCrillis, H.O.
Conquest of pain.

Call no.

ANESTHESIA

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